



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,886	07/29/2003	Kristofer Erik Metz	100203270-1	5569

22879 7590 03/20/2007
HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

WON, MICHAEL YOUNG

ART UNIT	PAPER NUMBER
----------	--------------

2155

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/629,886

Applicant(s)

METZ ET AL.

Examiner

Michael Y. Won

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the application filed July 29, 2003.
2. Claims 1-40 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, 15-22, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Roper et al. (US 5,454,079 A).

INDEPENDENT:

As per **claim 1**, Roper teaches a method for preparing electronic data for transmission, comprising:

calculating a duration for compressing the electronic data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

calculating a duration for transmitting the electronic data if not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

Art Unit: 2155

compressing the electronic data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

As per **claim 15**, Roper teaches a computer readable medium having instructions for:

calculating a duration for compressing electronic data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

calculating a duration for transmitting the electronic data if not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

compressing the electronic data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

As per **claim 37**, Roper teaches a system for preparing electronic data for transmission, comprising:

a means for calculating a duration for compressing the electronic data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

a means for calculating a duration for transmitting the electronic data if not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

a means for compressing the electronic data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

DEPENDENT:

As per **claims 2 and 16**, which respectively depend on claims 1 and 15, Roper further teaches wherein calculating the duration for compressing the electronic data comprises calculating a duration for compressing a portion of the electronic data (see col.1, lines 19-21 and col.4, lines 59-61: "packet"), and wherein compressing comprises compressing the portion of the electronic data only if the duration for compressing does not exceed the duration for transmitting (see claim 1 and 15 rejection above).

As per **claims 3 and 17**, which respectively depend on claims 1 and 15, Roper further teaches wherein calculating the duration for compressing includes calculating a combined duration for compressing and decompressing the electronic data (see col.2, lines 24-30: "otherwise, more time is lost in compression and decompression") and wherein compressing comprises compressing the electronic data only if the combined duration does not exceed the duration for transmitting (see claim 1 and 15 rejection above).

As per **claims 4 and 18**, which respectively depend on claims 1 and 15, Roper teaches of further comprising calculating a duration for transmitting the electronic data if compressed, and wherein compressing comprises compressing the electronic data only if the duration for compressing summed with the duration for transmitting the electronic

data if compressed does not exceed the duration for transmitting the electronic data if not compressed (see col.6, lines 23-24: "This time limit is an estimate of the time that would be saved by sending compressed data").

As per **claims 5 and 19**, which respectively depend on claims 1 and 15, Roper teaches of further comprising calculating a duration for transmitting the electronic data if compressed, and wherein calculating the duration for compressing includes calculating a combined duration for compressing and decompressing the electronic data (see col.2, lines 24-30: "otherwise, more time is lost in compression and decompression"), and wherein compressing comprises compressing the electronic data only if the combined duration summed with the duration for transmitting the electronic data if compressed does not exceed the duration for transmitting the electronic data if not compressed (see claim 4 and 18 rejection above).

As per **claims 6 and 20**, which respectively depend on claims 1 and 15, Roper further teaches wherein calculating the duration for transmitting the electronic data if not compressed includes identifying a transmit rate for a port through which the electronic data will be transmitted and calculating the duration according to the transmit rate for the port and a size of the electronic data (see col.3, lines 39-41: "based on packet size and bandwidth").

As per **claims 7 and 21**, which respectively depend on claims 1 and 15, Roper further teaches wherein calculating the duration for transmitting the electronic data if not compressed includes: noting a transmit rate; and calculating the duration for

Art Unit: 2155

transmitting the electronic data according to a size of the electronic data and the transmit rate (see col.3, lines 39-41: "based on packet size and bandwidth").

As per **claims 8 and 22**, which respectively depend on claims 7 and 21, Roper further teaches wherein noting comprises measuring a duration for transmitting other electronic data, identifying a size of the other electronic data, and calculating the transmit rate based on the measured duration for transmitting the other electronic data and the identified size of the other electronic data (see col.4, line 65-col.5, line 6: "table 31, 32... includes data on e.g. bandwidth, maximum frame size, and so on for that link. It is also possible for this table to contain updates about traffic conditions on the link").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-14, 23-36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roper et al. (US 5,454,079 A) in view of Nakazato (US 6,891,631 B1).

INDEPENDENT:

As per **claim 9**, Roper teaches a method for preparing a print job containing raster data, comprising:

calculating a duration for compressing the data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

calculating a duration for transmitting if the data is not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

compressing the data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

Roper does not explicitly teach that the data is a raster data for a print job.

Nakazato teaches that the data is a raster data for a print job (see col.10, lines 47-51: "image data transfer time per raster line" and col.15, lines 23-24: "raster front").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that the data is a raster data for a print job. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

As per **claim 23**, Roper teaches a computer readable medium having instructions for:

calculating a duration for compressing the data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

calculating a duration for transmitting if the data is not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

compressing the data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

Roper does not explicitly teach that the data is a raster data for a print job.

Nakazato teaches that the data is a raster data for a print job (see col.10, lines 47-51: "image data transfer time per raster line" and col.15, lines 23-24: "raster front").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that the data is a raster data for a print job. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

As per **claim 29**, Roper teaches a system for preparing a print job containing raster data, comprising:

a bandwidth module operable to supply data relating to a transmit rate (see col.5, lines 1-6: "table... includes data on e.g. bandwidth, maximum frame size... to contain updates about traffic conditions on the link");

Art Unit: 2155

a duration module operable to calculate a duration for compressing the data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value") and to calculate, based on a transmit rate supplied by the bandwidth module, a duration for transmitting if the data is not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

a compression selector operable to instruct that the data be compressed only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

Roper does not explicitly teach that the data is a raster data for a print job.

Nakazato teaches that the data is a raster data for a print job (see col.10, lines 47-51: "image data transfer time per raster line" and col.15, lines 23-24: "raster front").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that the data is a raster data for a print job. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

As per **claim 36**, Roper teaches a print server, comprising:

a queue (see Fig.2, #50; and col.3, lines 61-62: "the communication subsystem places messages for transmission in a queue");

a queue manager operable to administer in the queue (see col.5, lines 54-56: "unit that examines");

a bandwidth module operable to supply data relating to a transmit rate (see col.5, lines 1-6: "table... includes data on e.g. bandwidth, maximum frame size... to contain updates about traffic conditions on the link");

a duration module operable to calculate a duration for compressing the data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value") and to calculate, based on a transmit rate supplied by the bandwidth module, a duration for transmitting if the data is not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

a compression selector operable to instruct the queue manager to compress the data only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

Roper does not explicitly teach that the data is a raster data for a print job.

Nakazato teaches that the data is a raster data for a print job (see col.10, lines 47-51: "image data transfer time per raster line" and col.15, lines 23-24: "raster front").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that the data

Art Unit: 2155

is a raster data for a print job. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

As per **claim 38**, Roper teaches a system for preparing a print job containing raster data, comprising:

a means for supplying data relating to a transmit rate (see col.5, lines 1-6: "table... includes data on e.g. bandwidth, maximum frame size... to contain updates about traffic conditions on the link");

a means for calculating a duration for compressing the data (see col.3, lines 36-37: "means for determining whether the message can be compressed within the time value");

a means for calculating a duration for transmitting if the data is not compressed (see col.3, lines 39-44: "The calculation of the time value could be simply derived from an estimated transmission time"); and

a means for instructing that the data be compressed only if the duration for compressing does not exceed the duration for transmitting (see col.3, lines 33-37: "indication provided to the call-back function is a time value within which compression should be performed").

Roper does not explicitly teach that the data is a raster data for a print job.

Art Unit: 2155

Nakazato teaches that the data is a raster data for a print job (see col.10, lines 47-51: "image data transfer time per raster line" and col.15, lines 23-24: "raster front").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that the data is a raster data for a print job. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

DEPENDENT:

As per **claims 10 and 24**, which respectively depend on claim 9 and 23, Roper does not explicitly teach of further comprising transmitting the print job to an image forming device.

Nakazato teaches of further comprising transmitting the print job to an image forming device (see col.5, lines 32-36: "printer").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato by implementing transmitting the print job to an image forming device. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers make up one of a plurality of devices on a network.

As per **claims 11, 25, and 31**, which respectively depend on claims 9, 23, and 29, Roper further teaches wherein calculating the duration for transmitting includes identifying a transmit rate for a port through which the data will be transmitted en route to a device and calculating the duration according to the transmit rate for the port and a size of the data (see claim 6 rejection above).

Roper does not explicitly teach that the data is for a print job and that the device is an image forming device.

Nakazato teaches that the data is for a print job and that the device is an image forming device (see col.5, lines 32-36: "image data is transferred from the computer 10 to the printer 20").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that data is for a print job and that the device is an image forming device. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers device make up one of a plurality of devices on a network.

As per **claims 12, 26, and 33**, which respectively depend on claims 9, 23, and 29, Roper further teaches wherein calculating the duration for transmitting the data includes: noting a transmit rate; and calculating the duration for transmitting the data according to a size of the data and the transmit rate (see claim 7 rejection above).

Roper does not explicitly teach that the data is for a print job.

Art Unit: 2155

Nakazato teaches that the data is for a print job (see claim 9, 23, and 29 rejections above).

As per **claims 13, 27, and 34**, which respectively depend on claims 12, 26, and 33, Roper further teaches wherein noting comprises measuring a duration for transmitting a prior data, identifying a size of the prior data, and calculating the transmit rate for the prior data based on the measured duration for transmitting the prior data and the identified size of the prior data (see claim 8 rejection above).

Roper does not explicitly teach that the data is for a print job.

Nakazato teaches that the data is for a print job (see claim 9, 23, and 29 rejections above).

As per **claims 14, 28, and 35**, which respectively depend on claims 13, 27, and 34, Roper further teaches wherein measuring a duration comprises measuring a duration for transmitting the prior data from a queue to device (see Fig.2, #50).

Roper does not explicitly teach that the data is for a print job and that the device is an image forming device.

Nakazato teaches that the data is for a print job and that the device is an image forming device (see claim 11, 25, and 31 rejection above).

As per **claim 30**, which depends on claim 29, Roper does not explicitly teach wherein one or more of the bandwidth module, duration module, and the compression selector are programming elements of a print driver.

Nakazato teach wherein one or more of the bandwidth module, duration module, and the compression selector are programming elements of a print driver (see col.9,

Art Unit: 2155

lines 46-52: "For calculating a data transfer speed of the bidirectional interface 30, the printer driver...").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Roper in view of Nakazato so that data the bandwidth module is a programming elements of a print driver. One would be motivated to do so because Roper teaches that the invention is applicable in a computer workstation running an application and sending data via a network (see col.1, lines 6-10 and col.2, line 64-col.3, line 2) and one of ordinary skill in the art knows devices such as printers device make up one of a plurality of devices on a network and are rendered functional via a driver at the computer workstation.

As per **claim 32**, which depends on claim 29, Roper further teaches wherein the bandwidth module is operable to identify a port through which the data will be transmitted, identify an assumed transmit rate for that port, and supply the duration module with the assumed transmit rate (see claim 6 rejection above).

Roper does not explicitly teach that the data is for a print job.

Nakazato teaches that the data is for a print job (see claim 29 rejection above).

As per **claim 39**, which depends on claim 38, Roper further teaches wherein the means for supplying is a means for supplying data relating to a port through which the data will travel en route to a device (see claim 6 rejection above).

Roper does not explicitly teach that the device is an image forming device.

Nakazato teaches that the device is an image forming device (see claim 10 and 24 rejection above).

Art Unit: 2155

As per **claim 40**, which depends on claim 38, Roper further teaches wherein the means for supplying is a means for supplying a transmit rate for a prior data (see claim 8 rejection above).

Roper does not explicitly teach that the data is for a print job.

Nakazato teaches that the data is for a print job (see claim 38 rejection above).

Conclusion

5. Based on the action above claims 1-40 have been rejected and remain pending.

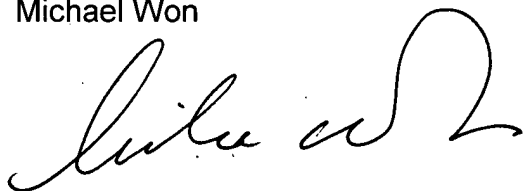
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Won

A handwritten signature in black ink, appearing to read 'Michael Won', with a stylized flourish at the end.

March 16, 2007